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# Opinions and Social Pressure

by Solomon E. Asch

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# Opinions and Social Pressure

*Exactly what is the effect of the opinions of others on our own?  
In other words, how strong is the urge toward social conformity?  
The question is approached by means of some unusual experiments*

by Solomon E. Asch

That social influences shape every person's practices, judgments and beliefs is a truism to which anyone will readily assent. A child masters his "native" dialect down to the finest nuances; a member of a tribe of cannibals accepts cannibalism as altogether fitting and proper. All the social sciences take their departure from the observation of the profound effects that groups exert on their members. For psychologists, group pressure upon the minds of individuals raises a host of questions they would like to investigate in detail.

How, and to what extent, do social forces constrain people's opinions and attitudes? This question is especially pertinent in our day. The same epoch that has witnessed the unprecedented technical extension of communication

has also brought into existence the deliberate manipulation of opinion and the "engineering of consent." There are many good reasons why, as citizens and as scientists, we should be concerned with studying the ways in which human beings form their opinions and the role that social conditions play.

Studies of these questions began with the interest in hypnosis aroused by the French physician Jean Martin Charcot (a teacher of Sigmund Freud) toward the end of the 19th century. Charcot believed that only hysterical patients could be fully hypnotized, but this view was soon challenged by two other physicians, Hippolyte Bernheim and A. A. Liébault, who demonstrated that they could put most people under the hypnotic spell. Bernheim proposed that hyp-

nosis was but an extreme form of a normal psychological process which became known as "suggestibility." It was shown that monotonous reiteration of instructions could induce in normal persons in the waking state involuntary bodily changes such as swaying or rigidity of the arms, and sensations such as warmth and odor.

It was not long before social thinkers seized upon these discoveries as a basis for explaining numerous social phenomena, from the spread of opinion to the formation of crowds and the following of leaders. The sociologist Gabriel Tarde summed it all up in the aphorism: "Social man is a somnambulist."

When the new discipline of social psychology was born at the beginning of this century, its first experiments were



EXPERIMENT IS REPEATED in the Laboratory of Social Relations at Harvard University. Seven student subjects are asked by the experimenter (*right*) to compare the length of lines (*see diagram*

*on the next page*). Six of the subjects have been coached beforehand to give unanimously wrong answers. The seventh (*sixth from the left*) has merely been told that it is an experiment in perception.

essentially adaptations of the suggestion demonstration. The technique generally followed a simple plan. The subjects, usually college students, were asked to give their opinions or preferences concerning various matters; some time later they were again asked to state their choices, but now they were also informed of the opinions held by authorities or large groups of their peers on the same matters. (Often the alleged consensus was fictitious.) Most of these studies had substantially the same result: confronted with opinions contrary to their own, many subjects apparently shifted their judgments in the direction of the views of the majorities or the experts. The late psychologist Edward L. Thorndike reported that he had succeeded in modifying the esthetic preferences of adults by this procedure. Other psychologists reported that people's evaluations of the merit of a literary passage could be raised or lowered by ascribing the passage to different authors. Apparently the sheer weight of numbers or authority sufficed to change opinions, even when no arguments for the opinions themselves were provided.

Now the very ease of success in these experiments arouses suspicion. Did the subjects actually change their opinions, or were the experimental victories scored only on paper? On grounds of common sense, one must question whether opinions are generally as watery as these studies indicate. There is some reason to wonder whether it was not the investigators who, in their enthusiasm for a theory, were suggestible, and whether the ostensibly gullible subjects were not providing answers which they thought good subjects were expected to give.

The investigations were guided by certain underlying assumptions, which today are common currency and account for much that is thought and said about the operations of propaganda and public opinion. The assumptions are that people submit uncritically and painlessly to external manipulation by suggestion or prestige, and that any given idea or value can be "sold" or "unsold" without reference to its merits. We should be skeptical, however, of the supposition that the power of social pressure necessarily implies uncritical submission to it; independence and the capacity to rise above group passion are also open to human beings. Further, one may question on psychological grounds whether it is possible as a rule to change a person's judgment of a situation or an object without first changing his knowledge or assumptions about it.

In what follows I shall describe some experiments in an investigation of the effects of group pressure which was carried out recently with the help of a number of my associates. The tests not only demonstrate the operations of group pressure upon individuals but also illustrate a new kind of attack on the problem and some of the more subtle questions that it raises.

A group of seven to nine young men, all college students, are assembled in a classroom for a "psychological experiment" in visual judgment. The experimenter informs them that they will be comparing the lengths of lines. He shows two large white cards. On one is a single vertical black line—the standard whose length is to be matched. On the other card are three vertical lines of various lengths. The subjects are to choose the one that is of the same length as the line on the other card. One of the three actually is of the same length; the other two are substantially different, the difference ranging from three quarters of an inch to an inch and three quarters.

The experiment opens uneventfully. The subjects announce their answers in the order in which they have been seated in the room, and on the first round every person chooses the same matching line. Then a second set of cards is exposed; again the group is unanimous. The members appear ready to endure politely another boring experiment. On the third trial there is an unexpected disturbance. One person near the end of the group disagrees with all the others in his selection of the matching line. He looks surprised, indeed incredulous, about the disagreement. On the following trial he disagrees again, while the others remain unanimous in their choice. The dissenter becomes more and more worried and hesitant as the disagreement continues in succeeding trials; he may pause before announcing his answer and speak in a low voice, or he may smile in an em-

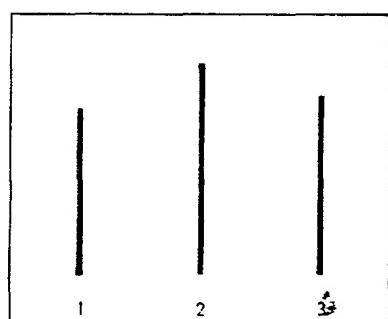
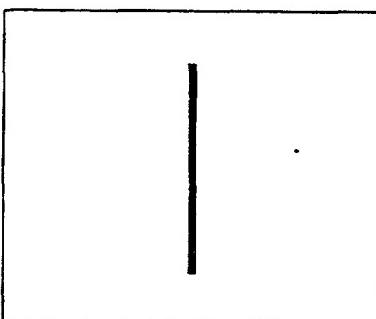
barrassed way.

What the dissenter does not know is that all the other members of the group were instructed by the experimenter beforehand to give incorrect answers in unanimity at certain points. The single individual who is not a party to this pre-arrangement is the focal subject of our experiment. He is placed in a position in which, while he is actually giving the correct answers, he finds himself unexpectedly in a minority of one, opposed by a unanimous and arbitrary majority with respect to a clear and simple fact. Upon him we have brought to bear two opposed forces: the evidence of his senses and the unanimous opinion of a group of his peers. Also, he must declare his judgments in public, before a majority which has also stated its position publicly.

The instructed majority occasionally reports correctly in order to reduce the possibility that the naive subject will suspect collusion against him. (In only a few cases did the subject actually show suspicion; when this happened, the experiment was stopped and the results were not counted.) There are 18 trials in each series, and on 12 of these the majority responds erroneously.

How do people respond to group pressure in this situation? I shall report first the statistical results of a series in which a total of 123 subjects from three institutions of higher learning (not including my own, Swarthmore College) were placed in the minority situation described above.

Two alternatives were open to the subject: he could act independently, repudiating the majority, or he could go along with the majority, repudiating the evidence of his senses. Of the 123 put to the test, a considerable percentage yielded to the majority. Whereas in ordinary circumstances individuals matching the lines will make mistakes less than 1 per cent of the time, under group pres-



SUBJECTS WERE SHOWN two cards. One bore a standard line. The other bore three lines, one of which was the same length as the standard. The subjects were asked to choose this line.



**EXPERIMENT PROCEEDS** as follows. In the top picture the subject (center) hears rules of experiment for the first time. In the second picture he makes his first judgment of a pair of cards, disagreeing with the unanimous judgment of the others. In the third he leans forward to look at another pair of cards. In the fourth he shows the strain of repeatedly disagreeing with the majority. In the fifth, after 12 pairs of cards have been shown, he explains that "he has to call them as he sees them." This subject disagreed with the majority on all 12 trials. Seventy-five per cent of experimental subjects agree with the majority in varying degrees.

sure the minority subjects swung to acceptance of the misleading majority's wrong judgments in 36.8 per cent of the selections.

Of course individuals differed in response. At one extreme, about one quarter of the subjects were completely independent and never agreed with the erroneous judgments of the majority. At the other extreme, some individuals went with the majority nearly all the time. The performances of individuals in this experiment tend to be highly consistent. Those who strike out on the path of independence do not, as a rule, succumb to the majority even over an extended series of trials, while those who choose the path of compliance are unable to free themselves as the ordeal is prolonged.

The reasons for the startling individual differences have not yet been investigated in detail. At this point we can only report some tentative generalizations from talks with the subjects, each of whom was interviewed at the end of the experiment. Among the independent individuals were many who held fast because of staunch confidence in their own judgment. The most significant fact about them was not absence of responsiveness to the majority but a capacity to recover from doubt and to re-establish their equilibrium. Others who acted independently came to believe that the majority was correct in its answers, but they continued their dissent on the simple ground that it was their obligation to call the play as they saw it.

Among the extremely yielding persons we found a group who quickly reached the conclusion: "I am wrong, they are right." Others yielded in order "not to spoil your results." Many of the individuals who went along suspected that the majority were "sheep" following the first responder, or that the majority were victims of an optical illusion; nevertheless, these suspicions failed to free them at the moment of decision. More disquieting were the reactions of subjects who construed their difference from the majority as a sign of some general deficiency in themselves, which at all costs they must hide. On this basis they desperately tried to merge with the majority, not realizing the longer-range consequences to themselves. All the yielding subjects underestimated the frequency with which they conformed.

Which aspect of the influence of a majority is more important—the size of the majority or its unanimity? The experiment was modified to examine this

question. In one series the size of the opposition was varied from one to 15 persons. The results showed a clear trend. When a subject was confronted with only a single individual who contradicted his answers, he was swayed little; he continued to answer independently and correctly in nearly all trials. When the opposition was increased to two, the pressure became substantial: minority subjects now accepted the wrong answer 13.6 per cent of the time. Under the pressure of a majority of three, the subjects' errors jumped to 31.8 per cent. But further increases in the size of the majority apparently did not increase the weight of the pressure substantially. Clearly the size of the opposition is important only up to a point.

Disturbance of the majority's unanimity had a striking effect. In this experiment the subject was given the support of a truthful partner—either another individual who did not know of the pre-arranged agreement among the rest of the group, or a person who was instructed to give correct answers throughout.

The presence of a supporting partner depleted the majority of much of its power. Its pressure on the dissenting individual was reduced to one fourth: that is, subjects answered incorrectly only one fourth as often as under the pressure of a unanimous majority [see chart at lower left on facing page]. The weakest persons did not yield as readily. Most interesting were the reactions to the partner. Generally the feeling toward him was one of warmth and closeness; he was credited with inspiring confidence. However, the subjects repudiated the suggestion that the partner decided them to be independent.

Was the partner's effect a consequence of his dissent, or was it related to his accuracy? We now introduced into the experimental group a person who was instructed to dissent from the majority but also to disagree with the subject. In some experiments the majority was always to choose the worst of the comparison lines and the instructed dissenter to pick the line that was closer to the length of the standard one; in others the majority was consistently intermediate and the dissenter most in error. In this manner we were able to study the relative influence of "compromising" and "extremist" dissenters.

Again the results are clear. When a moderate dissenter is present, the effect of the majority on the subject decreases by approximately one third, and extremes of yielding disappear. Moreover, most of the errors the subjects do make

are moderate, rather than flagrant. In short, the dissenter largely controls the choice of errors. To this extent the subjects broke away from the majority even while bending to it.

On the other hand, when the dissenter always chose the line that was more flagrantly different from the standard, the results were of quite a different kind. The extremist dissenter produced a remarkable freeing of the subjects; their errors dropped to only 9 per cent. Furthermore, all the errors were of the moderate variety. We were able to conclude that dissent *per se* increased independence and moderated the errors that occurred, and that the direction of dissent exerted consistent effects.

In all the foregoing experiments each subject was observed only in a single setting. We now turned to studying the effects upon a given individual of a change in the situation to which he was exposed. The first experiment examined the consequences of losing or gaining a partner. The instructed partner began by answering correctly on the first six trials. With his support the subject usually resisted pressure from the majority: 18 of 27 subjects were completely independent. But after six trials the partner joined the majority. As soon as he did so, there was an abrupt rise in the subjects' errors. Their submission to the majority was just about as frequent as when the minority subject was opposed by a unanimous majority throughout.

It was surprising to find that the experience of having had a partner and of having braved the majority opposition with him had failed to strengthen the individuals' independence. Questioning at the conclusion of the experiment suggested that we had overlooked an important circumstance; namely, the strong specific effect of "desertion" by the partner to the other side. We therefore changed the conditions so that the partner would simply leave the group at the proper point. (To allay suspicion it was announced in advance that he had an appointment with the dean.) In this form of the experiment, the partner's effect outlasted his presence. The errors increased after his departure, but less markedly than after a partner switched to the majority.

In a variant of this procedure the trials began with the majority unanimously giving correct answers. Then they gradually broke away until on the sixth trial the naive subject was alone and the group unanimously against him. As long as the subject had anyone on his side, he

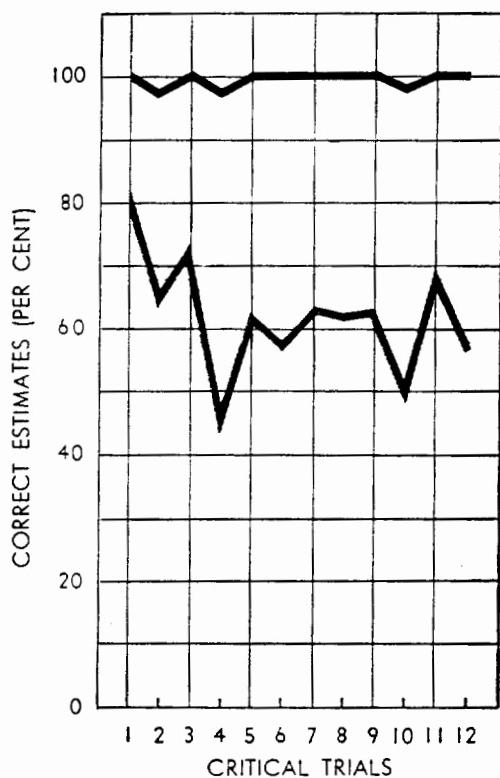
was almost invariably independent, but as soon as he found himself alone, the tendency to conform to the majority rose abruptly.

As might be expected, an individual's resistance to group pressure in these experiments depends to a considerable degree on how wrong the majority is. We varied the discrepancy between the standard line and the other lines systematically, with the hope of reaching a point where the error of the majority would be so glaring that every subject would repudiate it and choose independently. In this we regrettably did not succeed. Even when the difference between the lines was seven inches, there were still some who yielded to the error of the majority.

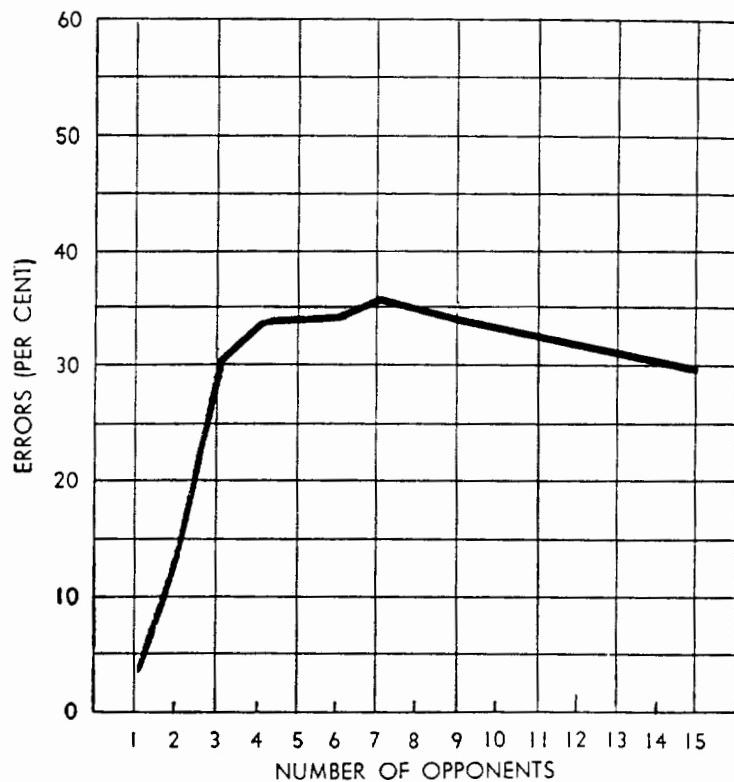
The study provides clear answers to a few relatively simple questions, and it raises many others that await investigation. We would like to know the degree of consistency of persons in situations which differ in content and structure. If consistency of independence or conformity in behavior is shown to be a fact, how is it functionally related to qualities of character and personality? In what ways is independence related to sociological or cultural conditions? Are leaders more independent than other people, or are they adept at following their followers? These and many other questions may perhaps be answerable by investigations of the type described here.

Life in society requires consensus as an indispensable condition. But consensus, to be productive, requires that each individual contribute independently out of his experience and insight. When consensus comes under the dominance of conformity, the social process is polluted and the individual at the same time surrenders the powers on which his functioning as a feeling and thinking being depends. That we have found the tendency to conformity in our society so strong that reasonably intelligent and well-meaning young people are willing to call white black is a matter of concern. It raises questions about our ways of education and about the values that guide our conduct.

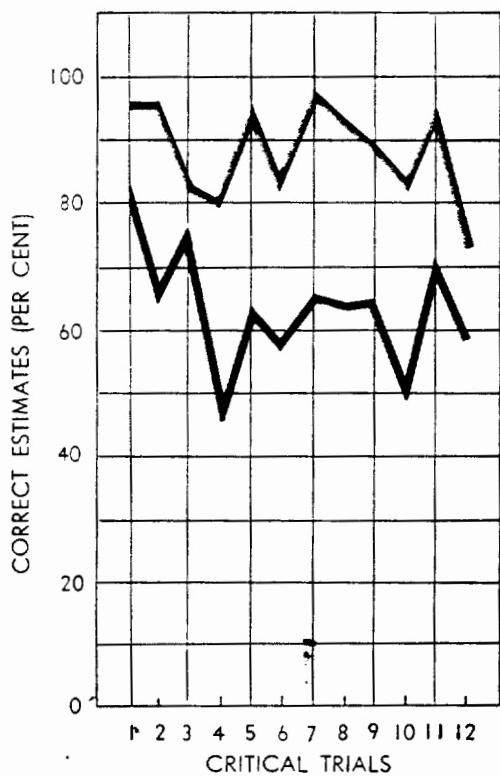
Yet anyone inclined to draw too pessimistic conclusions from this report would do well to remind himself that the capacities for independence are not to be underestimated. He may also draw some consolation from a further observation: those who participated in this challenging experiment agreed nearly without exception that independence was preferable to conformity.



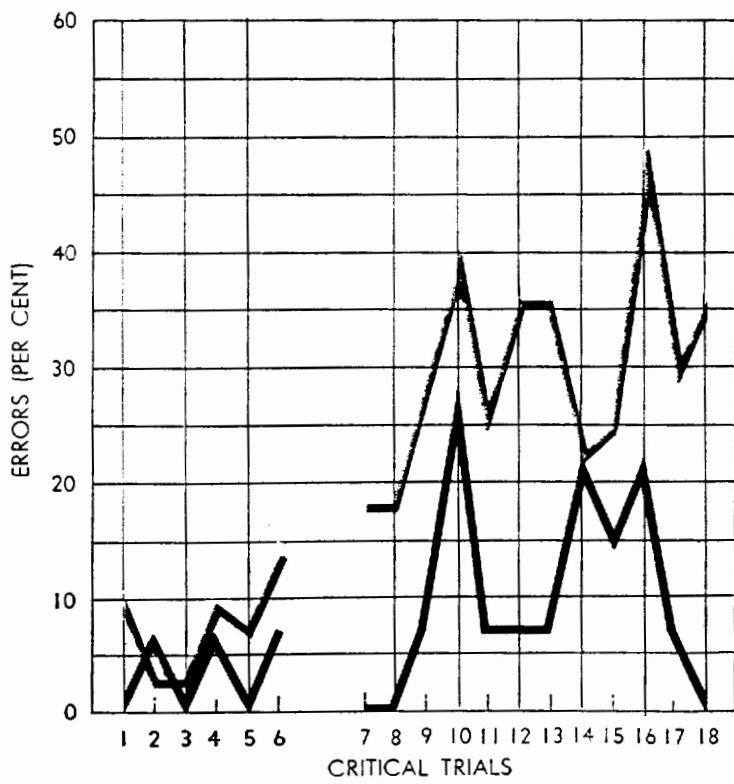
ERROR of 123 subjects, each of whom compared lines in the presence of six to eight opponents, is plotted in the colored curve. The accuracy of judgments not under pressure is indicated in black.



SIZE OF MAJORITY which opposed them had an effect on the subjects. With a single opponent the subject erred only 3.6 per cent of the time; with two opponents he erred 13.6 per cent; three, 31.8 per cent; four, 35.1 per cent; six, 35.2 per cent; seven, 37.1 per cent; nine, 35.1 per cent; 15, 31.2 per cent.



TWO SUBJECTS supporting each other against a majority made fewer errors (colored curve) than one subject did against a majority (black curve).



PARTNER LEFT SUBJECT after six trials in a single experiment. The colored curve shows the error of the subject when the partner "deserted" to the majority. Black curve shows error when partner merely left the room.

## The Author

SOLOMON E. ASCH is professor of psychology at Swarthmore College. He was born in Warsaw in 1907, came to the U.S. in his youth and graduated from the College of the City of New York in 1928. After taking his M.A. and Ph.D. from Columbia University, he taught at Brooklyn College and the New School for Social Research before joining the Swarthmore faculty in 1947.

## Bibliography

- EFFECTS OF GROUP PRESSURE UPON THE  
MODIFICATION AND DISTORTION OF  
JUDGMENTS. S. E. Asch in *Groups,  
Leadership and Men*, edited by Harold Guetzkow. Carnegie Press, 1951.
- SOCIAL LEARNING AND IMITATION. N. E. Miller and J. Dollard. Yale University Press, 1941.
- SOCIAL PSYCHOLOGY. Solomon E. Asch. Prentice-Hall, Inc., 1952.

# Study Guide

Prepared by JOHN P. J. PINEL, UNIVERSITY OF BRITISH COLUMBIA

## OPINIONS AND SOCIAL PRESSURE

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### I. SUMMARY

How, and how much, do social forces constrain people's opinions? The study of this question began with interest in the phenomenon of hypnosis. It was shown that monotonous reiteration of instructions could induce in normal, awake persons involuntary responses, such as swaying or rigidity of the arms, and sensations, such as warmth and odor. When the discipline of social psychology was born at the beginning of this century, many of its first experiments were demonstrations of how suggestion could affect opinion. The usual format was first to ask the subjects their opinions concerning various matters. Some time later they were asked to state their opinions again, but this time they were first told of opinions held by authorities or large groups of their peers. Confronted with opinions contrary to theirs, many subjects shifted their judgments in the direction of the opposing views. Evidently the sheer weight of numbers or authority was sufficient to change opinions, even when no arguments for the opinions themselves were provided. The author describes a series of experiments which have not only confirmed the finding that group pressure can shape opinion, but also raised some interesting new questions.

The same general format was always followed. A group of seven to nine subjects was assembled in a classroom—supposedly to take part in an experiment on visual judgment. These subjects were first shown a white card with a single black line. From a second card with three lines the subjects were asked to choose the line which was the same length as the line on the first card. The subjects announced their answers one at a time, in the order in which they were seated. However, only the last individual in the sequence was a subject; the others were in league with the experimenter and responded according to a prearranged plan. What did the subject do on trials when all the other members of the group

selected a line that was not correct? Two alternatives were open to the subject: he could act independently, repudiating the majority; or he could go along with the majority, repudiating the evidence of his senses. Under ordinary circumstances individuals made mistakes less than 1 per cent of the time, but under group pressure the subjects accepted the wrong judgments in 36.8 per cent of the cases. Of course, individuals differed markedly in their responses; some subjects were completely independent, never agreeing with the group on test trials, whereas other subjects conformed almost all the time.

Which aspect of group influence is most important—the size of the majority or its unanimity? Asch's experimental procedures were modified slightly to examine this question. In one series of studies the size of the opposition was varied from one to 15 persons. The effectiveness of the group pressure increased markedly up to a group size of three, but further increases added little to the over-all effect. But even when groups were large, disturbance of the group unanimity had a striking effect. The presence of a supporting partner depleted the majority of much of its power. Subjects conformed to group pressure only one-fourth as often in the presence of one supporting partner. Even when one of the experimenter's collaborators was instructed to disagree with both the group and the subject, the rate of conformity was reduced. In such cases, if the "partner" began to conform to the group, the number of errors made by the subject increased immediately; but if the partner simply withdrew from the group, the increase in errors was much more gradual.

Consensus is an indispensable condition in a complex society, but consensus, to be productive, requires that each individual contribute independently out of experience and insight. When consensus is produced by conformity, the social process is polluted.

### II. GLOSSARY

*aphorism* — a concise statement of a principle.

*hypnosis* — trance-like state produced in a subject by suggestion.

*hysterical* — simulating the symptoms of organic illness in the absence of any organic pathology.

*somnambulist* — a sleepwalker.

### III. ESSAY STUDY QUESTIONS

1. Briefly describe the research on "suggestion" which preceded Asch's experiments.
2. Describe the results of Asch's experiments.
3. Under group pressure a subject may say that he has changed his opinion, but it is difficult to determine whether he really has. Discuss with respect to Asch's experiment. What experiments could be performed to deal with this question?
4. What effect did the size of the majority and its degree of unanimity have on its degree of influence?
5. The support of a partner was removed in two ways. What were they and what effect did the loss of support have?
6. When consensus comes under the dominance of conformity, the social process is polluted. Discuss.
7. The author concludes that the capacities for independence are not to be underestimated. What evidence is there for this conclusion?